

## ***INSTALLATION INSTRUCTIONS***



# **STELLAR**

## ***LFS SERIES***

REV 1/05

## DAMAGED SHIPMENT CLAIM PROCEDURE

Whenever a shipment suffers damage while in the custody of the transportation company, the responsibility lies with the transportation company, and the value of the damages can be collected from the transportation company if the proper procedures are followed.

When a shipment is received in a damaged condition and due to the appearance of the containers such as a broken crate, torn wrapping, or smashed carton, the contents may have been damaged. That fact should be noted on the Bill of Lading offered by the transportation company. An example of an applicable statement would be; "Received in good order except as noted" or "Crate damaged, possibility of concealed damage." The addition of these types of statements on the shipping documents will automatically give grounds for starting a claim.

If damage cannot be identified on the exterior of the container, but is found when the container is opened, further unpacking should be stopped immediately and the container with all wrapping or packing materials should be held. The transportation company should be notified so an inspector can be sent. Failure to follow either of these two procedures may result in an inability to file a claim and collect for damage done. Returning the container to the sender without such an inspection may prevent filing a claim, because it will divide the responsibility for damage and in many cases the transportation company will return the shipment to the sender without charge after the inspection.

The claim itself may be filed by either the shipper or consignee, but the consignee must notify the transportation company and the shipper that the damage has occurred. Remember that refusal of the shipment or failure to note the possibility of damage on the shipping documents may jeopardize the claim. Also, acceptance of a damaged shipment which has been processed properly to allow for filing a claim, will not jeopardize the position of the consignee. In any case, SKYTRON will see that damage which is not the fault of the consignee or his agents is corrected, if the transportation company does not honor the claim, as long as SKYTRON receives the full cooperation of the consignee in filing the claim.

Some of the papers needed for filing a claim are in the hands of the consignee after the shipment has been received. If SKYTRON must file a claim, we will request these papers by name from the consignee at such time as the claim is under discussion. We will require the originals of these papers and not copies.

Knowledge of the procedures outlined above and your cooperation in submitting damaged shipment claims will help both you, our customer, and SKYTRON by assuring the integrity of our products from manufacturing to installation.

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## EQUIPMENT LABELS AND SPECIFICATIONS

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ATTENTION, CONSULT MANUAL FOR FURTHER INSTRUCTIONS.  
INDICATES SPECIAL USER ATTENTION.



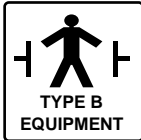
AC VOLTAGE



FUSE TYPE 3 AMP, SLOW BLOW TYPE



FUSE TYPE 5 AMP, SLOW BLOW TYPE



CLASS I DEFIBRILLATION PROOF, TYPE B EQUIPMENT- IPX4 RATED.  
INTERNALLY POWERED EQUIPMENT

FOR DRY LOCATIONS

UNIT TO BE USED ONLY IN SPECIFIED ENVIRONMENTAL CONDITIONS

TEMPERATURE: 15° - 30° C (60° -85° F)

HUMIDITY: 30% - 60% RELATIVE HUMIDITY, NON CONDENSING

### ENTE LA CERTIFIED

TO UL2601-1

CAN/CSA601.1, IEC 60601-2-46



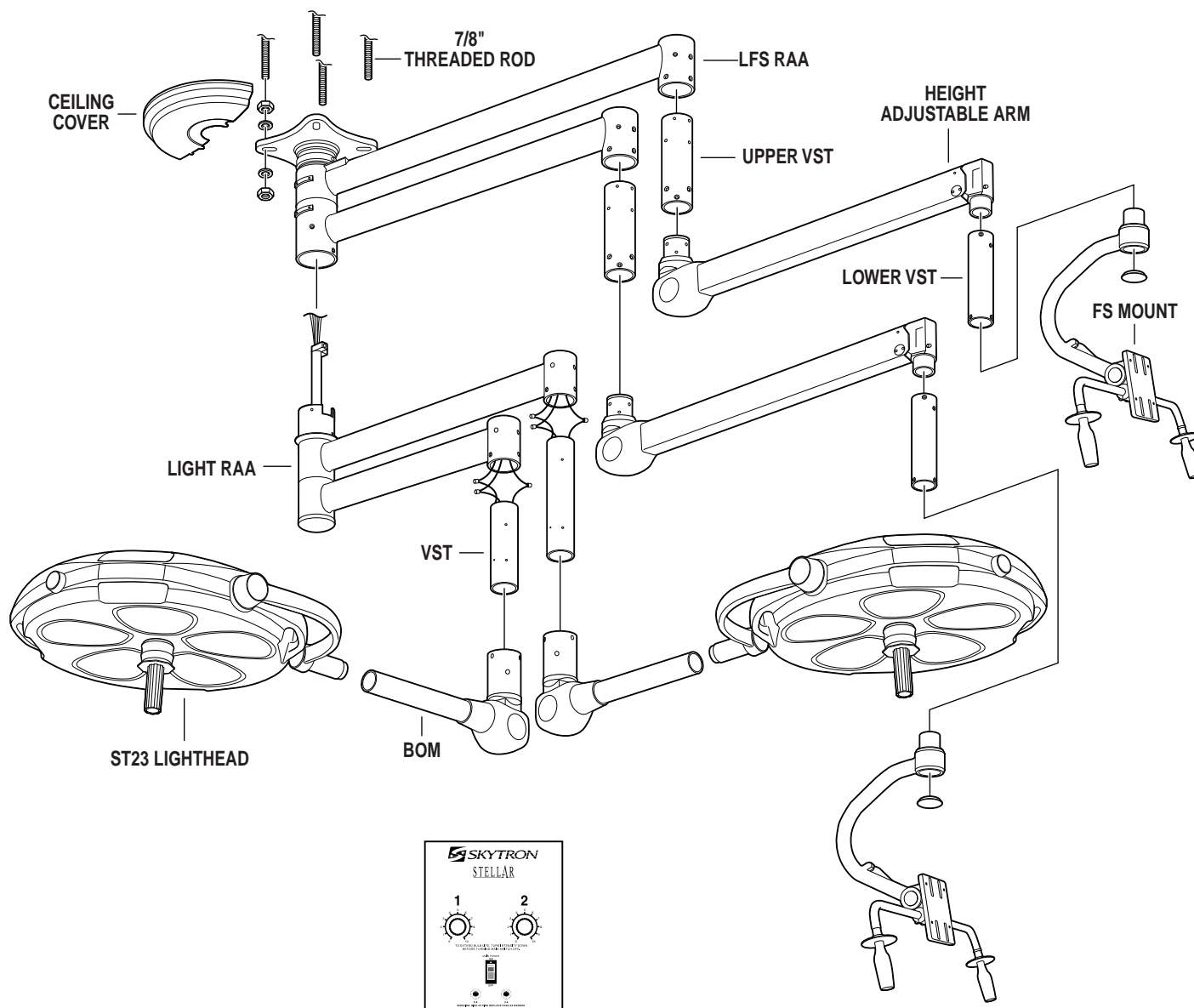
### TOOLS REQUIRED:

3/8" DRIVE RATCHET  
ALLEN WRENCH SET-METRIC  
(2) STEP LADDERS  
1" DEEP SOCKET, 3/8" DRIVE  
#2 PHILLIPS HEAD SCREW DRIVER  
UTILITY KNIFE  
WIRE CUTTERS

CRIMP PLIERS  
DIGITAL LEVEL  
TRUE RMS MULTIMETER  
PORTABLE LIFT, 750LB. CAPACITY  
12" ADJUSTABLE WRENCH  
SLOTTED HEAD SCREWDRIVER 1/4"  
PUNCHSET 1/8" - 3/8"

**REV 1/05**

Although current at the time of publication, SKYTRON'S policy of continuous development makes this manual subject to change without notice.



**Figure 1.**

### **TYPICAL INSTALLATION SEQUENCE / COMPONENT IDENTIFICATION**

- |  |   |
|--|---|
| 1. Mounting Hub and Flatscreen Mount<br>Arm Assembly | 5. Lighthead                                      |
| 2. Flatscreen Cables                                 | 6. Height Adjustable Arm                          |
| 3. Light Arm Assembly                                | 7. Flatscreen Mount                               |
| 4. Vertical Support Tubes/Balance<br>Mechanism       | 8. Upper Flatscreen Radial Arm<br>Stop Adjustment |
|  | 9. Ceiling Cover                                  |
|  | 10. Wall Control                                  |

## **INSTALLATION NOTES**

- The SKYTRON Surgical Lighting Fixture is normally shipped in four to six crates, depending on the model. A carton containing the Vertical Support Tubes, miscellaneous hardware, and various instructional materials is packed separately.
- Follow the Installation Instructions and utilize the Installation Check List to assure proper installation.
- Additional materials required for proper installation include Loc-Tite compound.
- Lighting fixtures require a wall mounted control box. Single and Dual Lighthead models 8" x 10", for Triple 10" x 13-1/2". 3/4" conduit and minimum 12 AWG wire is required between wall control and fixture. 10 AWG wire is recommended for installations requiring wires between control box and fixture that are longer than 25'.
- A 14AWG, 115V power cord with an IEC female plug is provided for power to the flatscreen monitor. Communication/video cables are provided by others.
- Skytron does not typically provide the flatscreen monitor. Please consult with supplier for specific details and requirements. Monitor weight cannot exceed 18 lbs.
- The mounting structure for all four arm systems must pass the SKYTRON "Test Jig" procedure. Refer to the Mounting Structure Guideline on page 14.

## **IMPORTANT NOTES**

### **UNCRATING**

- Should any damage to the fixture be noted while uncrating, further unpacking should be stopped and the container with all the wrappings held for inspection. The transportation company should be notified immediately so an inspector can be sent. Consult the Damaged Shipment Claim Procedure sheet for further details.
- Personnel uncrating SKYTRON surgical lights should be aware that they are delicate medical equipment and special care in handling should prevail throughout installation.

### **LIGHTHEADS**

- Use extreme caution when removing the contents from the crates to prevent damage to the lights. Leave the lightheads in their crates until ready to install.
- If the lighthead must be set down after it is removed from the crate, lay it on the foam shipping block. Do not lay it on the front face.

### **NOTE**

Details may vary depending upon model and support structure fabrication.

ALL fixtures use METRIC fasteners.

## INSTALLATION PROCEDURE

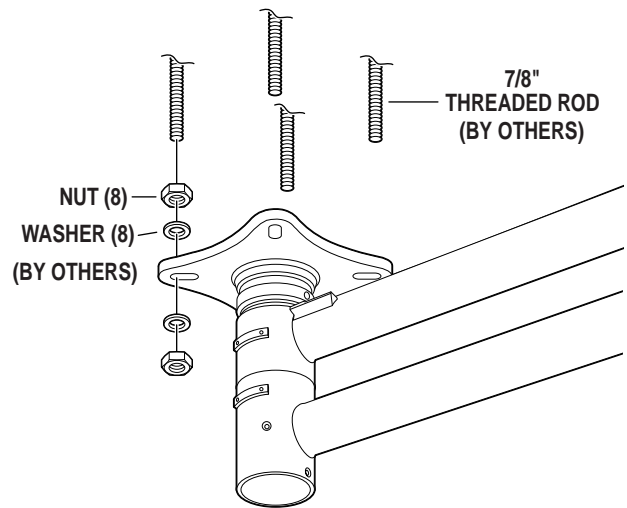
The lighting fixture should be installed in the following sequence:

1. Mounting Hub and Flatscreen Mount Arm Assembly
2. Flatscreen Cables
3. Light Arm Assembly
4. Vertical Support Tubes/ Balance Mechanisms
5. Lightheads
6. Height Adjustable Arm
7. Flatscreen Mount
8. Wall Control

### 1. Mounting Structure

a. Check the strength and stability of the mounting structure. It should be fabricated of steel and welded or bolted to the structural ceiling. It should be braced in a manner that will allow no twisting or lateral motion. The 7/8" diameter support rods should extend 2-1/4" below the finished ceiling for LFS models and 1-1/4" below the finished ceiling for LFSLFS models. See Mounting Structure Guidelines in the back of this booklet. For Seismic Applications please contact your local SKYTRON distributors. Differences exist.

b. Install the Radial Arm and Mounting Hub assembly on the threaded rods between jam nuts. The LFS hub should be 1-1/4" off the finished ceiling (measured from the bottom of the plate) and accurately leveled, within 0.1 degree, using a digital level. Tighten the jam nuts securely. The LFSLFS hub should be flush with the ceiling. See figure 2.



**Figure 2. Mounting Hub Installation**



#### **WARNING**



The mounting hub must be accurately leveled within 0.1° to prevent lighthead drift.

### 2. Flatscreen Cables

a. Before installing the light radial arm, route all video monitor cabling. If cabling is not available, a pull cable should be routed to ease later installation.

b. A 30mm (1.25") raceway is provided to accommodate video cabling. Refer to minimally invasive supply company for specific requirements prior to installation. Always follow manufacturers specific bend radii and state and local code requirements when installing such cabling.

### 3. Light Radial Arm Assembly

#### NOTE

- The multiple arm assemblies are easier to handle during installation if the arms are left taped and tied together.

a. Install the Light Radial Arm Assembly(RAA) into the receptacle on the Flatscreen Arm assembly and secure with (6) M6 x 10 screws. Align the joint shaft of the light radial arm to the hub assembly and install (2) M8 x 30 Allen bolts.

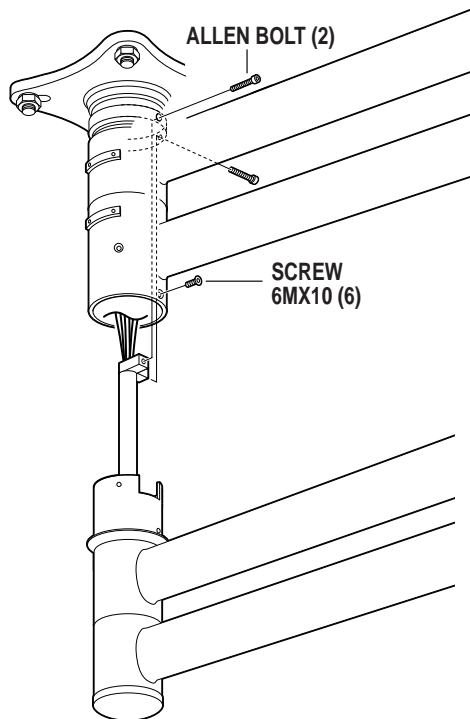


Figure 3. Radial Arm Installation

#### NOTE

Radial Arm wires are tagged for proper connection to the Wall Control (top arm #1, next arm #2, bottom arm [triple arm models] #3).

b. Observe wire tags and color codes and connect the electrical wires from the wall control to the radial arm junction box wires.

#### NOTE

Connection of the fixture wires using Crimp Connectors is required due to the low voltage/high amperage electrical requirements.

### 4. Vertical Support Tubes/Balance Mechanism

#### NOTE

Determine correct placement for each Balance Mechanism(BOM)/Vertical Support Tube(VST) on the radial arm assembly. The longest VST goes into the top radial arm.



#### WARNING



Apply Loc-Tite to all of the 6mm mounting screws and use a 4mm allen wrench to tighten the screws.

a. Install the VST on the BOM, apply Loc-Tite to screw threads and secure VST with the allen screws provided. See figure 4.



#### CAUTION



The 6mm mounting screws for attaching the VST to the radial arm may be different lengths. Observe any color code markings and make sure the proper screws are installed in the proper holes to avoid any damage to the electrical components.

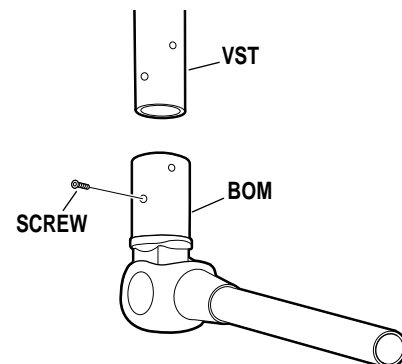
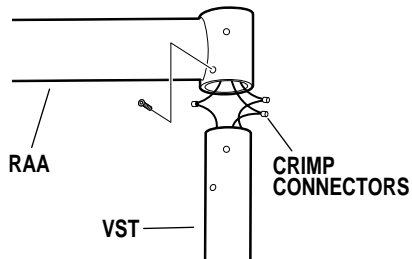


Figure 4. Balance Mechanism

b. Observe the wire colors and connect the wires from the radial arm to the corresponding BOM/VST wires using crimp connectors. See figure 5.



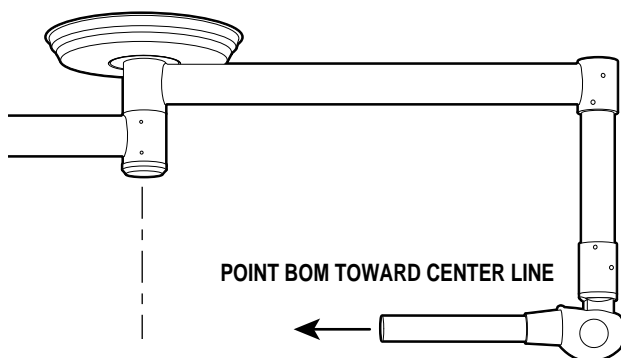
**Figure 5. VST to RAA Installation**

c. Insert the vertical support tube into the radial arm receptacle. Observe any screw color codes, apply Loc-Tite to screw threads, and secure the BOM/VST assembly with the 6mm mounting screws. Repeat procedure for any remaining BOM/VST assemblies.

## 5. Lightheads

### Model 29 Lighthead

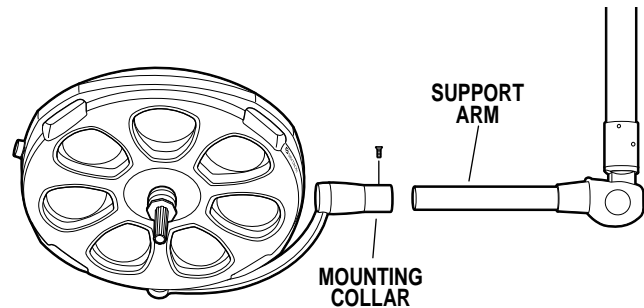
a. To make it easier to install the lighthead, locate the support arm of the balance mechanism so that it points inward toward the ceiling cover. This will prevent the radial arm from moving when installing the lighthead. See figure 6.



**Figure 6.**

b. Remove the four (4) screws from the lighthead mounting stub.

c. Install the lighthead mounting collar onto the support arm and secure with the screws previously removed. See figure 7.



**Figure 7. Model 29 Lighthead Installation**

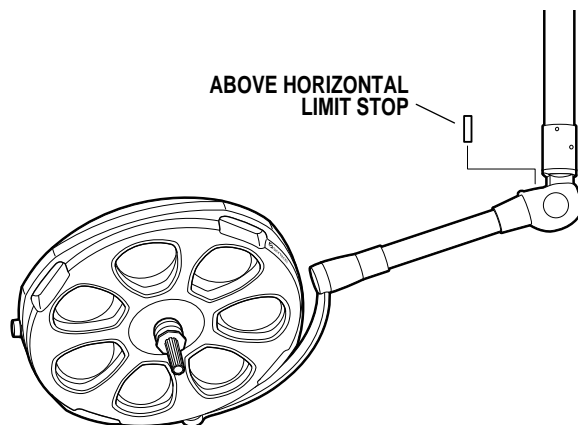
d. Pull the lighthead down and remove the Above Horizontal Limit Stops from the BOM. See figure 8.



**WARNING**



**DO NOT** remove lighthead when support arm is in down position; The balance mechanism will be severely damaged and may result in bodily injury.

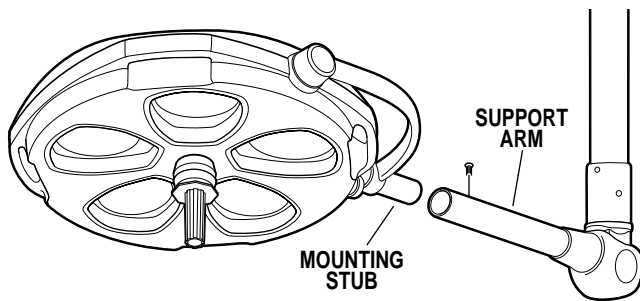


**Figure 8. Above Horizontal Limit Stops**



## Model 23 or 19 Lighthead

- To make it easier to install the lighthead, locate the support arm of the balance mechanism so that it points inward toward the ceiling cover. This will prevent the radial arm from moving when installing the lighthead. See figure 6.
- Remove the four (4) screws from the lighthead mounting stub.
- Install the lighthead mounting stub into the support arm and secure with the screws previously removed. See figure 9.



**Figure 9. Model 23 or 19 Lighthead Installation (ST23 Lighthead shown)**

- Pull the lighthead down and remove the Above Horizontal Limit Stops from the BOM. See figure 8.



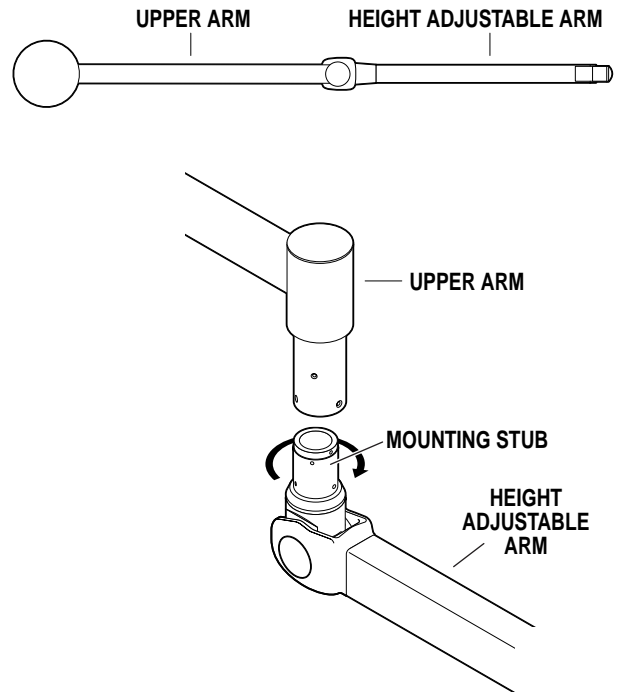
### WARNING



**DO NOT** remove lighthead when support arm is in down position; The balance mechanism will be severely damaged and may result in bodily injury.

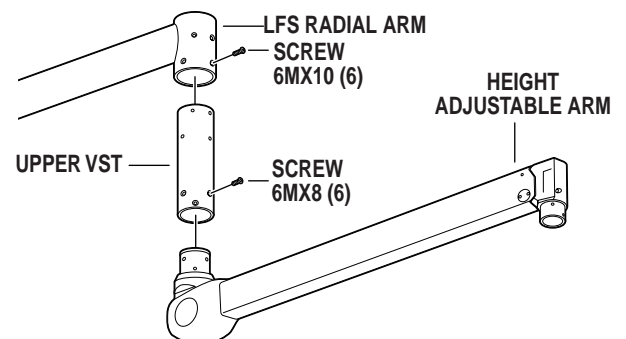
## 6. Height Adjustable Arm

- Install the Upper VST (longest) in the Flatscreen Radial Arm and secure with the (6) M6 x 10 screws.
- Rotate mounting stub of Height Adjustable Arm clockwise until it contacts the stop.
- Align Height Adjustable Arm in line with upper radial arm as shown in figure 10.



**Figure 10.**

- Install the Height Adjustable Arm in the Upper VST and secure with (6) M6 x 8 screws. See figure 11.

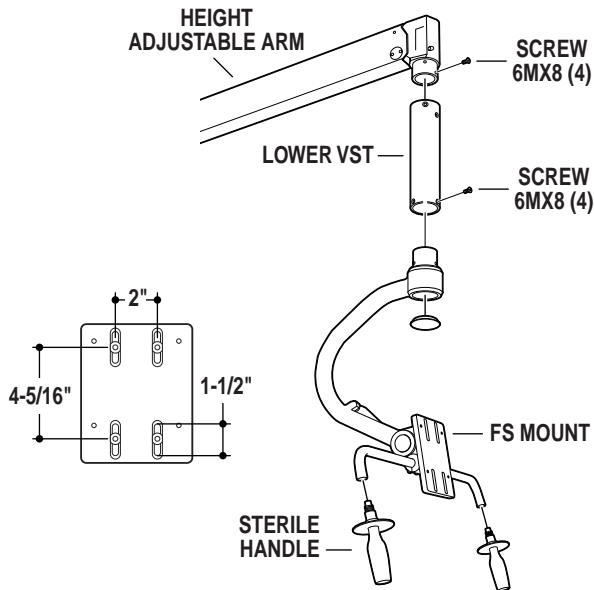


**Figure 11.**

## 7. Flatscreen Mount

a. Route all cabling or pullstring through arm assembly and install the Lower VST on the Height Adjustable Arm and secure with (4) M6 x 8 screws.

b. Install the Flatscreen Mount into the Lower VST and secure with (4) M6 x 8 screws. See figure 12.



**Figure 12.**

c. Install the (2) sterilizable positioning handles.

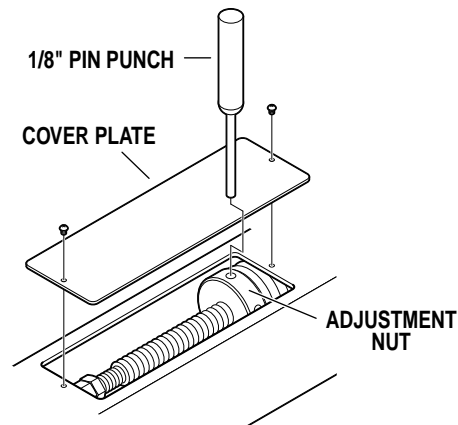
d. Install the flatscreen monitor according to manufacturer's instructions and connect all video and power cables.

e. Check the vertical tension adjustment of the Height Adjustable Arm for its capacity to support the flatscreen monitor throughout its range of motion. The monitor should move freely yet maintain its selected position without drifting. If an adjustment is necessary, refer to figure 13 and proceed as follows:

### NOTE

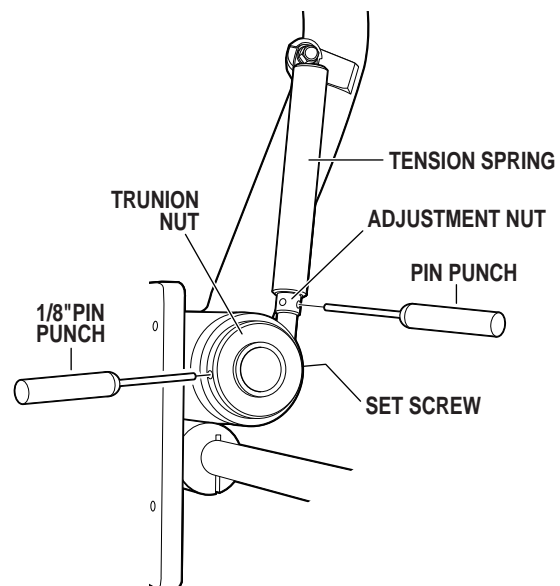
The System can support and balance a monitor weight up to 18 lbs. Exceeding the weight will result in poor balance and performance.

f. Remove the cover plate on the top of the Height Adjustable Arm for access to the tension adjustment nut. Insert a 1/8" pin punch into a hole in the adjustment and turn the nut as required to achieve proper tension - clockwise to increase tension, counterclockwise to decrease tension. Replace access cover when adjustment is complete.



**Figure 13.**

g. Check the adjustment for the flatscreen monitor pitch axis. The monitor should move freely yet maintain its selected position without drifting. If an adjustment is necessary, refer to figure 14 and proceed as follows:



**Figure 14.**

h. Loosen set screw on trunnion nut, insert a 1/8" pin punch into hole opposite set screw location and adjust trunnion nut as required - clockwise to increase tension, counter clockwise to decrease tension. Tighten set screw when adjustment is complete.

i. For fine adjustment, rotate the monitor downward until the adjustment nut is visible on the tension spring assembly. Using a pin punch, turn the adjustment nut until proper tension is achieved.

## 8. Upper Flatscreen Radial Arm Stop Adjustment

The Flatscreen Radial Arm has a ball stop mechanism that allows 340° of rotation in 30° increments. Use the following procedure to set the stop locations.

a. Determine the degree of stop rotation and the location for the stops based on the room layout. The recommended stop location is over the head end of the table, this will allow the most flexibility for positioning the monitor. Refer to figure 15.

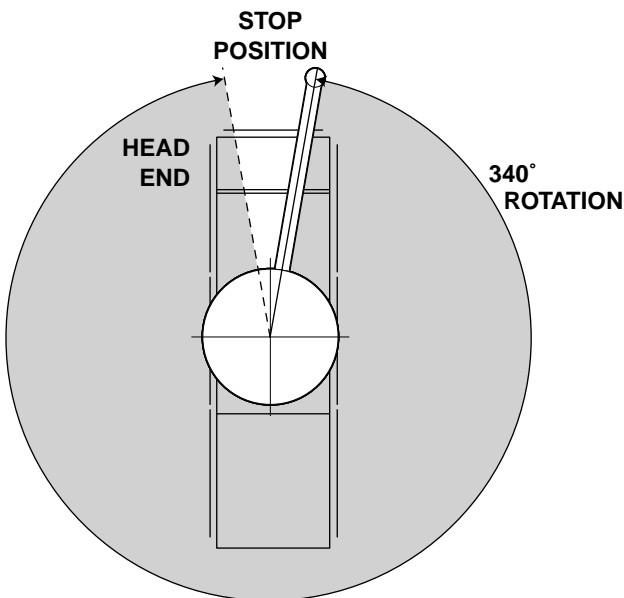


Figure 15.

b. To alter the stop position, refer to figure 16 and use the following procedures:

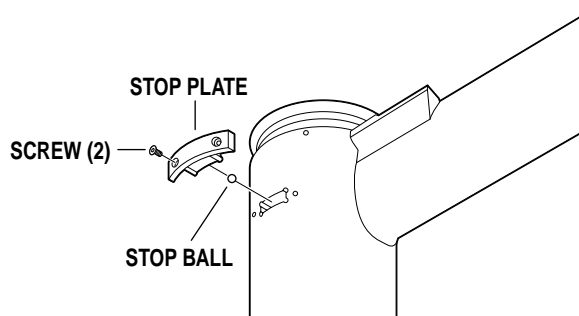


Figure 16.

c. Rotate the upper radial arm until the stop is contacted.

d. Remove the 2 screws securing the stop plate, remove the stop plate and stop ball.

e. Rotate the arm to the desired stop position, install the stop ball, install the stop plate and secure with the 2 screws.

## 9. Ceiling Cover

When all adjustments are complete and cables are routed, install the ceiling cover.

LFS models: Position and snap the two ceiling cover pieces together.

LFSLFS models: Install lower ceiling covers and secure with the screws and trim washers provided. See figure 17.

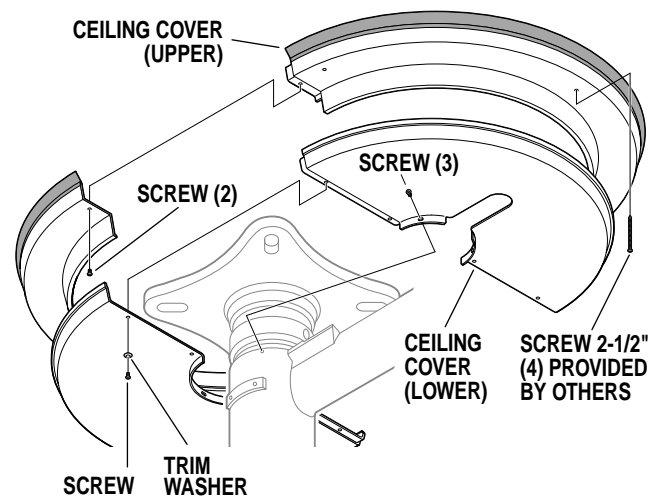


Figure 17.

Assemble the upper ceiling covers, center the upper cover in the lower cover and secure the upper cover to the ceiling using appropriate fasteners.

## 10. Wall Control

## NOTE

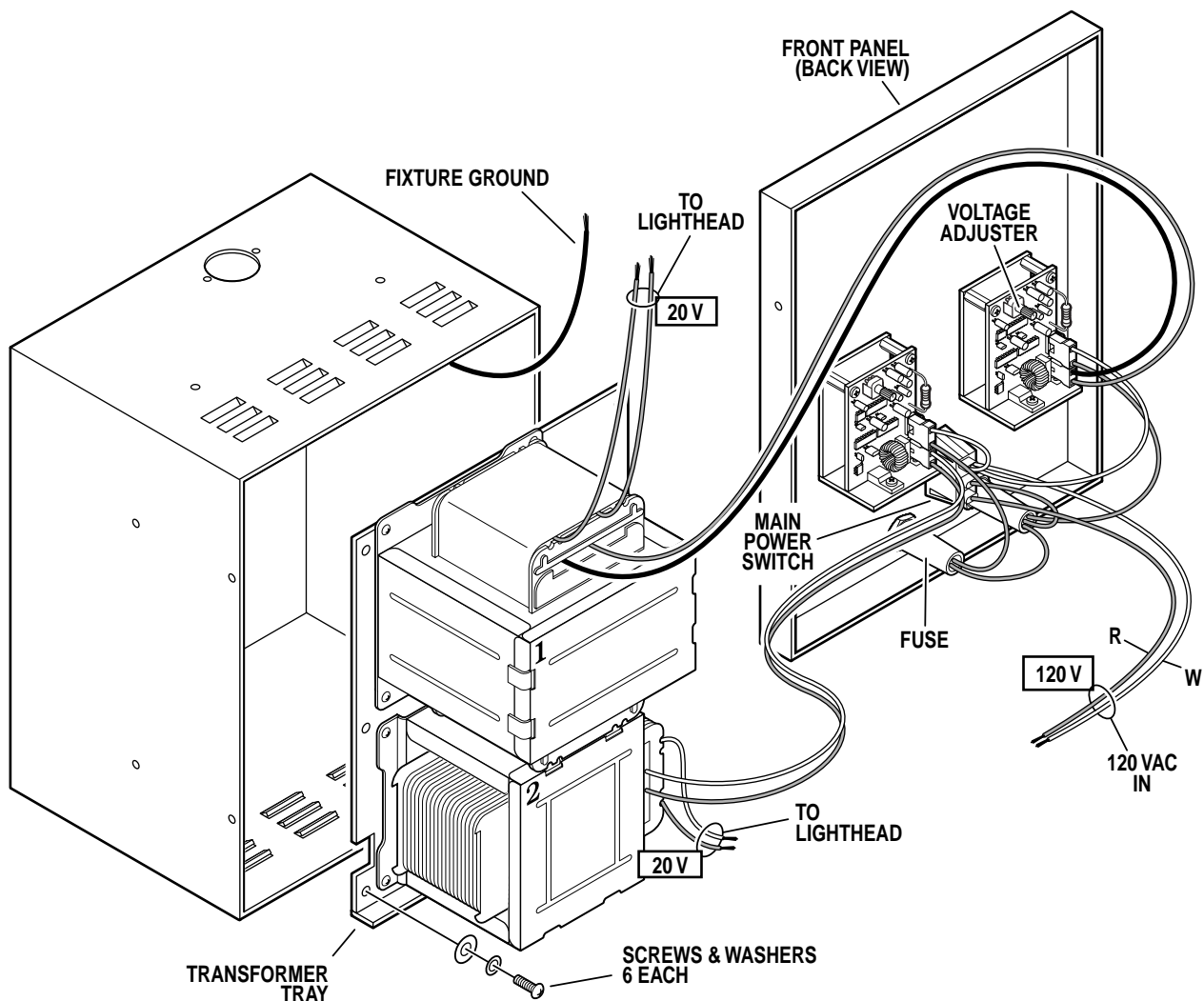
- 3/4" conduit and minimum 12AWG wire (2 wires per lighthouse plus fixture ground) is required between Wall Control and Fixture.
  - All wiring to be in accordance with local electrical codes.
- a. Install wall mounted control box using the following procedures.
  - b. Remove the transformer tray assembly from the wall control box for ease in wire connection. See figure 18.

- c. Install the wall control box as desired (surface or recessed mount) as shown in the wall control illustration, figure 19.

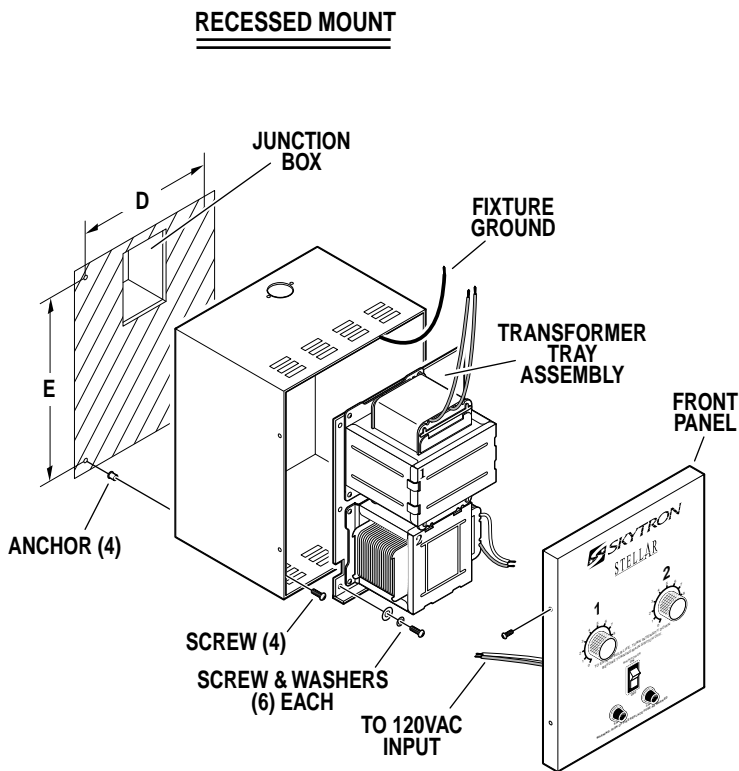
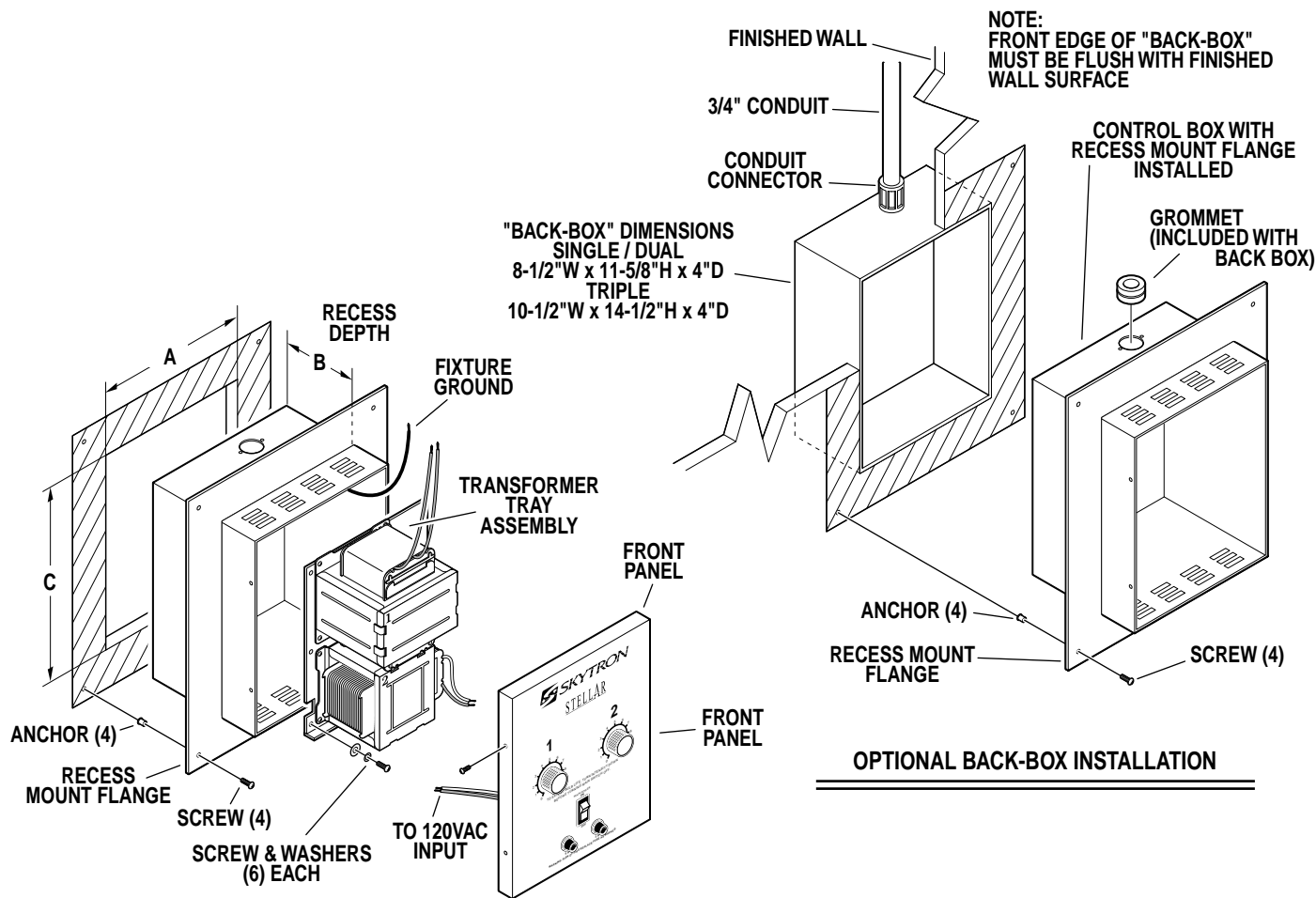
## NOTE

- Control Box wires are tagged for proper connection to the fixture.

- d. Observe wire tags and color codes and connect output leads to appropriate lighthouse wires using crimp connectors. See figure 18.



### Figure 18. Wall Control



	DIMENSIONS	
	SINGLE OR DUAL	TRIPLE
A	8"	10"
B	4"	4"
C	10"	13-1/2"
D	6-7/8"	8-5/8"
E	7-5/8"	11"
F	5-7/8"	6-3/8"
RECESS MOUNT FLANGE		
	11-3/4"W x 14"H	13-3/4"W x 17-1/4"H

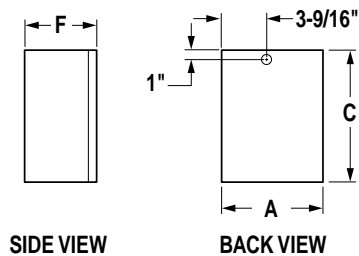


Figure 19. Wall Control Installation

## IMPORTANT

120 VAC isolated power supply requires double pole, single throw 20 amp (maximum) breaker.

- e. Connect 120 VAC power supply to input wires and ground fixture properly.



## CAUTION



TO AVOID BLOWING FUSES, DO NOT TURN MAIN POWER TO FIXTURE "ON" UNTIL ALL LIGHTHEADS ARE INSTALLED AND ALL WIRING CONNECTIONS ARE COMPLETED.

## 11. Output Voltage Adjustment

- a. Remove top cover from VST and test bulb voltage at the wire connections. Turn main power "ON" and set the Dimmer Control for the lighthouse being tested to maximum intensity for the test. Output voltage (at the connectors) should be  $20V \pm 0.2V$ . See figure 20.

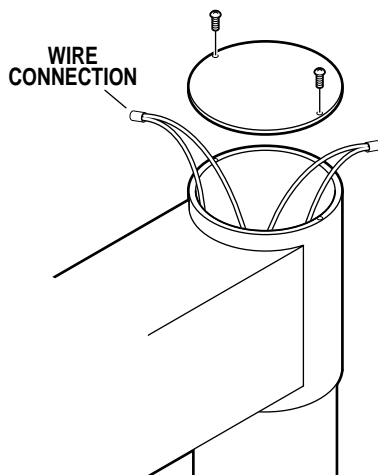


Figure 20. Bulb Voltage Test

## IMPORTANT

The internal circuitry used in the Stellar system requires the use of a **true RMS type digital voltmeter** to accurately set the bulb voltage. Premature bulb failure will result from incorrect voltage.

- b. Adjust the voltage to the lighthouse by turning the adjuster on the back of the appropriate dimmer control in the wall control. See figure 21.

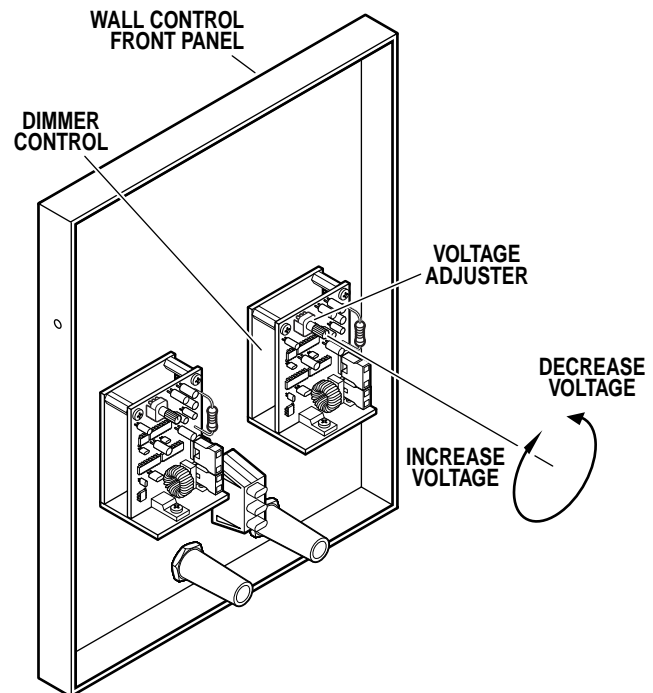


Figure 21. Voltage Adjustment

- c. Turn the adjuster clockwise to increase the output voltage, counterclockwise to decrease the voltage.

## ***MOUNTING STRUCTURE GUIDELINE***

### ***Foreword***

Skytron's objective is to provide a program and guideline to assist individuals (hospital owners, architects, structural engineers) responsible for the design of mounting structures.

The mounting structure of a Skytron fixture should always be considered the most important detail of any project prior to installation. Skytron's ceiling mounted systems depend upon properly designed and installed mounting structures to deliver years of dependable, service-free performance.

We realize that individual mounting structures vary in design due to unique structural requirements, physical obstructions, structural member availability and room layout limitations, to name a few.

The Mounting Structure Guideline is a successful, proven design. The design consists of a welded, "flanged pipe" assembly combined with (4) angled sway braces ("kickers"). A structural steel pipe combined with welded steel plates on each end facilitate its attachment to the structural ceiling and provide an attachment point for the Skytron fixture. This is a simple effective design that is forgiving to restricting structural conditions that are usually encountered during fabrication.

This design is also eliminates "guess work" by the steel fabricator when compared to structures that are fabricated on site with angle iron. In many cases the "flanged pipe" assembly can be pre-fabricated reducing the on-site construction time and eliminating the need to correct structural problems associated with angle iron structures.

The process of building a proper mounting structure can be complemented with Skytron's continued support on the project. Once the structures are fabricated, Skytron will perform a visual inspection and on-site consultation followed by an actual performance test. The performance test of the structure essentially involves hanging a "test jig" from the structure, and then measuring the amount of rotation that occurs at the mounting plate using an inclinometer (digital level). The test jig is similar in size, shape, and weight to the Skytron fixtures. In other words, once the test jig is installed and the proper weights have been added to simulate the product's moment load, a reading is taken on the digital level to verify that there is no more than two-tenths of a degree of rotational movement at the mounting plate.

Rotation of the mounting plate causes the radial arm(s) to become out of level and drift. For a structure to meet Skytron specifications, we require that the mounting plate does not rotate more than two-tenths of a degree while loaded with the specified weight and moment.

The testing process should occur in the early stages of construction to provide optimal time if additional reinforcement is needed on the structure. This should be performed prior to the completion of the finished ceiling.

Skytron's program is available to help you and provide you with the necessary counseling. However, the final responsibility to insure that the structure is adequate and meets specification lies with the structural engineer and the contractor for the project.

Our support services are geared to minimize the effort on all parties involved and to insure a successful product installation.

We recognize that not all situations will permit the use of this "Pipe Structure". Please contact SKYTRON with your special needs so that we may be able to guide you to other alternatives.



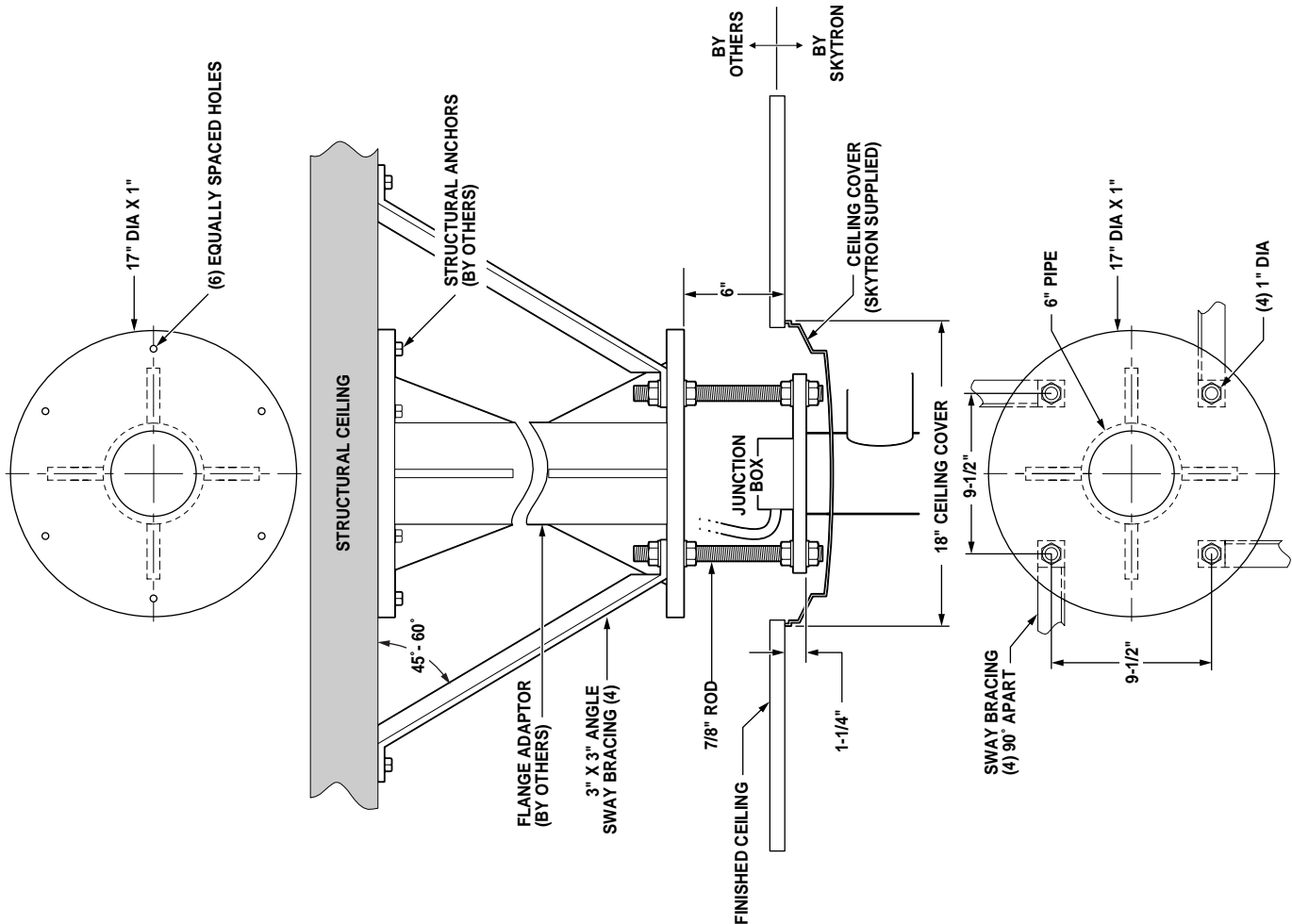
### NOTES

1. 7/8" support rods located for total support of light, all labor and materials for fabrication supplied by General Contractor. 7/8" nuts and washers for support of SKYTRON fixture supplied by contractor (16 ea. required).
2. The mounting structure must be attached to structural ceiling and **BRACED TO ALLOW NO TWISTING OR LATERAL MOTION** and shall be designed not to provide a degree of rotation greater than two-tenths of a degree at the mounting plate or the fixture mounting hub.
3. All 4 arm fixture installations require the mounting structure to be tested and comply with SKYTRON test jig requirements.
4. 120VAC 20A power supply required to junction box for monitor. Power cord with IEC female plug for monitor, supplied by SKYTRON. 3/4" conduit and minimum 12AWG wire size (2 wires per lighthouse plus fixture ground wire) required between fixture and SKYTRON supplied wall control. All conduit, wiring, and other electrical materials as well as installation labor for the SKYTRON surgical light to be provided by Electrical Contractor. All installations of SKYTRON surgical lights should be under the direct supervision of a SKYTRON representative. All wiring to be in accordance with local codes. Installation requiring power modules for flatscreen application require a NEMA 4 enclosure provided by others.
5. Video cable for monitor routed through arm at installation to be provided by customer. Approximately 15 feet of cable is required from mounting hub to monitor.
6. TV light systems require 50 feet RG59U coaxial cable from junction box to camera control unit faceplate, supplied by SKYTRON.
7. **CONTRACTOR HAS FINAL RESPONSIBILITY** for the strength and stability of the Mounting Structure.

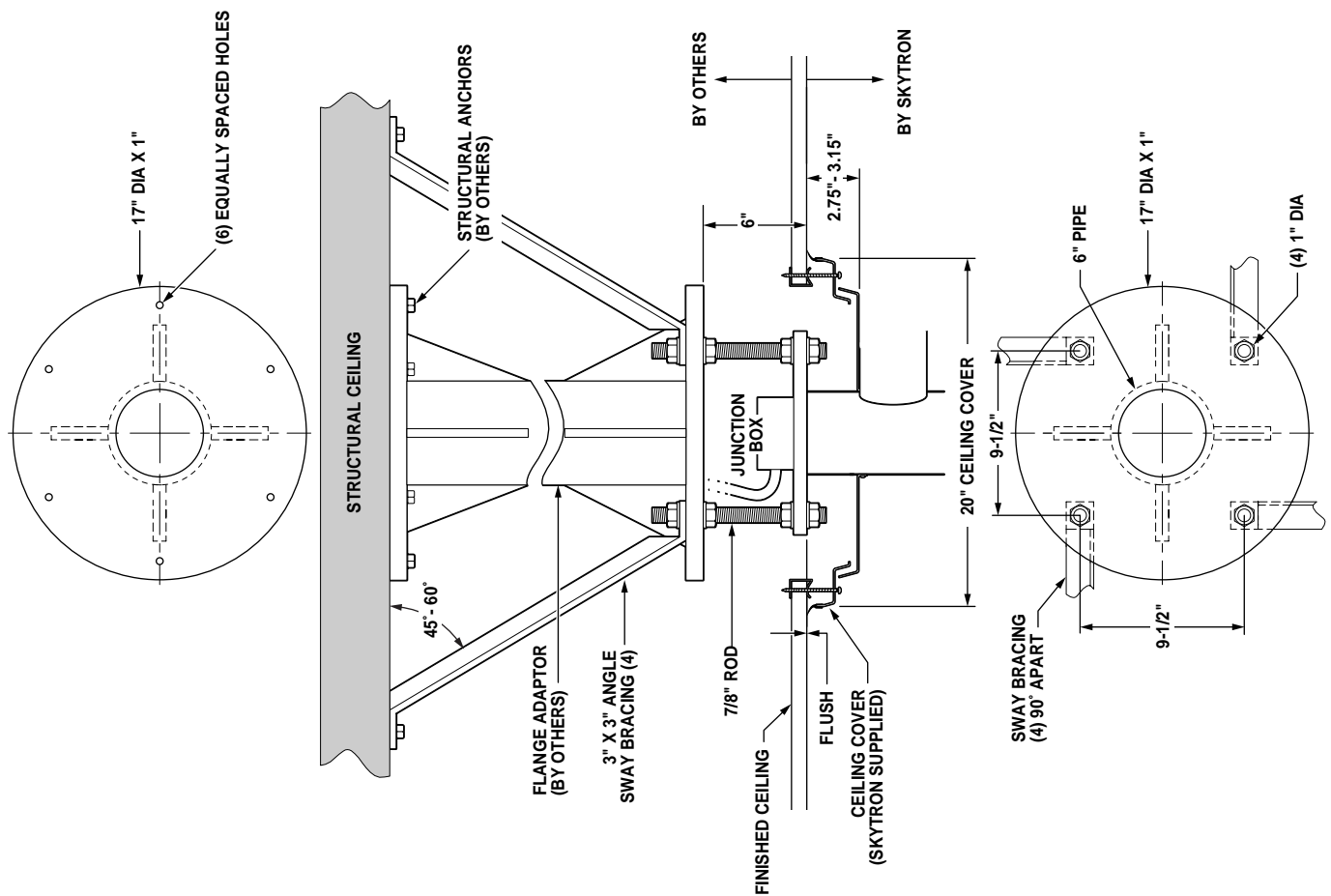
**This is a GENERAL GUIDELINE ONLY.**

**Consult specific Seismic calculations if applicable.**

## LFS MOUNTING STRUCTURE GUIDELINE







## NOTES

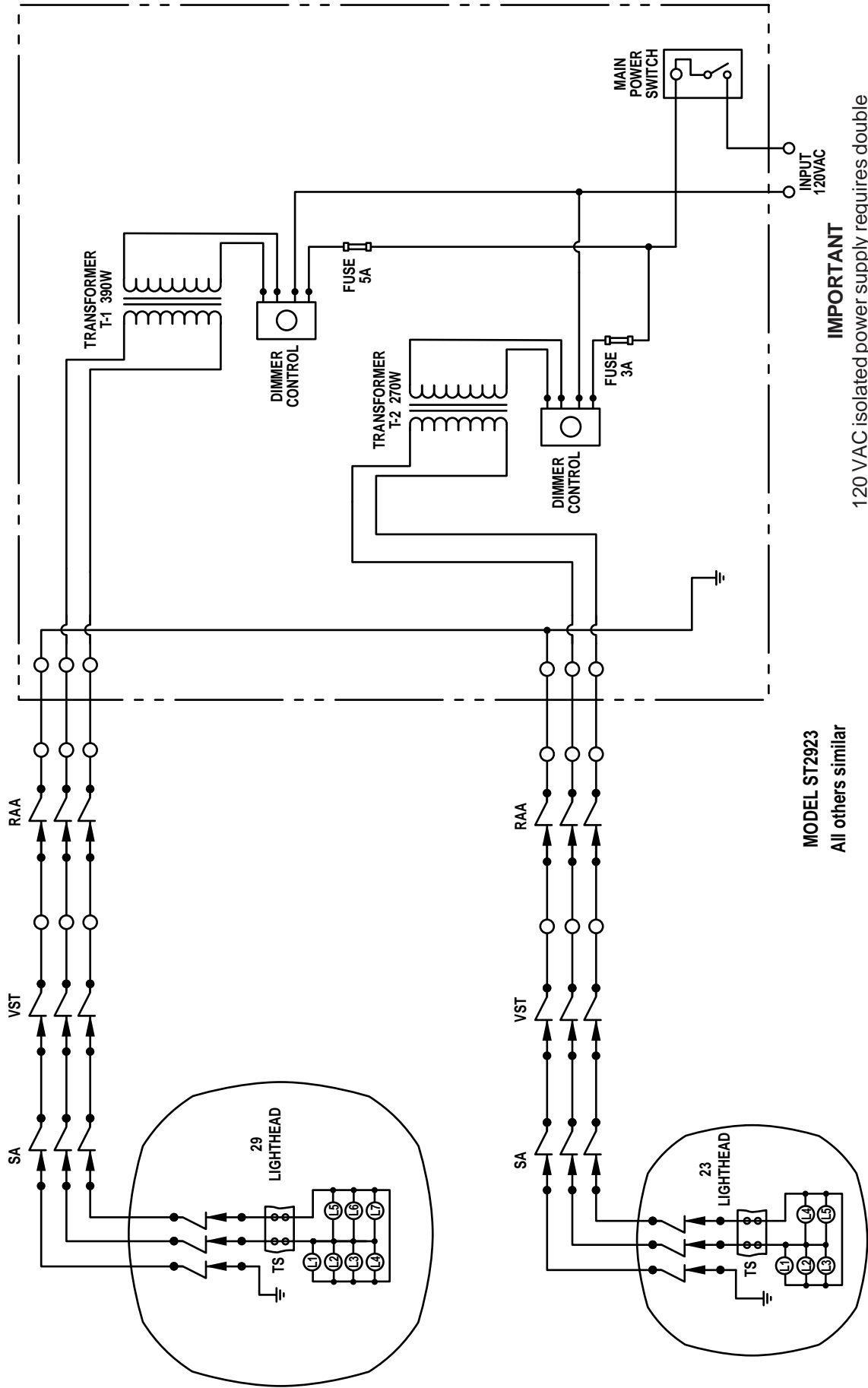
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3. All 4 arm fixture installations require the mounting structure to be tested and comply with SKYTRON test jig requirements.
4. 120VAC 20A power supply required to junction box for monitor. Power cord with IEC female plug for monitor, supplied by SKYTRON. 3/4" conduit and minimum 12AWG wire size (2 wires per lighthead plus fixture ground wire) required between fixture and SKYTRON supplied wall control. All conduit, wiring, and other electrical materials as well as installation labor for the SKYTRON surgical light to be provided by Electrical Contractor. All installations of SKYTRON surgical lights should be under the direct supervision of a SKYTRON representative. All wiring to be in accordance with local codes. Installation requiring power modules for flatscreen application require a NEMA 4 enclosure provided by others.
5. Video cable for monitor routed through arm at installation to be provided by customer. Approximately 15 feet of cable is required from mounting hub to monitor.
6. TV light systems require 50 feet RG59U coaxial cable from junction box to camera control unit faceplate, supplied by SKYTRON.
7. CONTRACTOR HAS FINAL RESPONSIBILITY for the strength and stability of the Mounting Structure.

**This is a GENERAL GUIDELINE ONLY.**

**Consult specific Seismic calculations if applicable.**

# LFSLS MOUNTING STRUCTURE GUIDELINE

○ ▲ ▴ T1-T3 L1-L8



120 VAC isolated power supply requires double pole, single throw 20 amp (maximum) breaker.

**MODEL ST2923**  
**All others similar**

## INSTALLATION CHECK LIST

### Mounting Structure:

Fabrication of structure correct \_\_\_\_\_  
Mounting plate set and level \_\_\_\_\_  
3/4" conduit and (min) 12AWG wire \_\_\_\_\_  
from fixture to wall control \_\_\_\_\_

### Radial Arm Assembly:

Mounting bolts installed & tightened \_\_\_\_\_  
Wiring properly connected & assembly grounded \_\_\_\_\_  
Ceiling cover installed \_\_\_\_\_  
Rotation stops set properly \_\_\_\_\_

### Vertical Support Tubes:

All BOM/VST's installed and 6 mm \_\_\_\_\_  
mounting screws Loc-tited \_\_\_\_\_

### Headroom Clearance

\_\_\_\_\_

### Lighthead:

Mounting stub screws installed \_\_\_\_\_  
Bulb Voltage checked \_\_\_\_\_  
Power ON, all bulbs illuminated \_\_\_\_\_  
Bulbs remain illuminated throughout: \_\_\_\_\_  
•RAA rotation \_\_\_\_\_  
•BOM rotation \_\_\_\_\_  
•Pitch axis \_\_\_\_\_  
•Roll axis \_\_\_\_\_  
•Vertical travel \_\_\_\_\_  
Center focus handle mounted \_\_\_\_\_

### Wall Control:

Wiring proper gauge \_\_\_\_\_  
Wire connections correct \_\_\_\_\_  
Cover screws installed \_\_\_\_\_  
Input voltage checked and \_\_\_\_\_  
adjusted as necessary \_\_\_\_\_

### Miscellaneous:

Diffuser assemblies clean \_\_\_\_\_  
Clean fixture with cleaning solution \_\_\_\_\_

### Flatscreen Monitor Mount:

Vertical Tension adjusted on height \_\_\_\_\_  
adjustable arm \_\_\_\_\_  
Monitor Mount pitch axis adjusted \_\_\_\_\_  
Cabling secured and properly routed \_\_\_\_\_  
Proper headroom clearances met \_\_\_\_\_



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